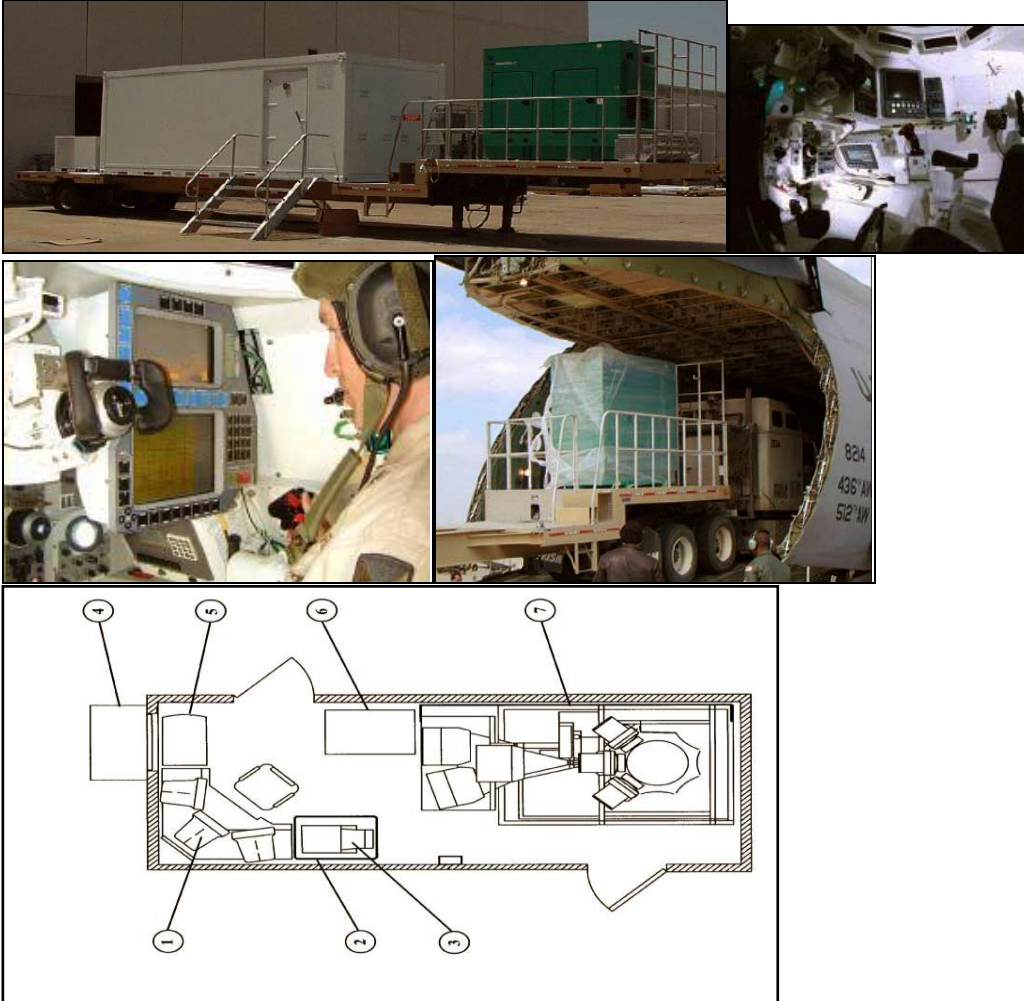


ADVANCED GUNNERY TRAINING SYSTEM (AGTS) FOR THE M1A2 (MOBILE) (MAGTS)

DVC 17-178A AGTS for M1A2 System Enhanced Package (SEP) (Mobile)



- 1) Instructor/Operator Station
- 2) General Purpose Computer
- 3) Laser Printer
- 4) Air Conditioner
- 5) Special Purpose Computer
- 6) Electronic Interface Unit
- 7) Crew Station

DVC 17-178, DVC 17-178A

Functional Description:

The M1A2 AGTS provides crew gunnery to commanders and gunners of the M1A2 Abrams Tank. This is accomplished by means of four functional subsystems; Computational, Instructional, Visual and Crew station. The Crew Station subsystem provides the crew with simulated vehicle components of the actual crew stations, which provide proper stimulus of and response to crew actions in a manner approximating the associated operational system. The visual subsystem simulates tactical scenes consisting of a variety of terrain and man-made cultural features and a number of potential target types so that the crew members can be trained in target detection, classification, and gunnery under combat conditions. The Instructional subsystem provides training exercises in which crew(s) interacts with each other and the trainer, in response to visual and aural cues while performing a variety of special purpose task training and tactical firing exercises. The Instructor/Operator Station (IOS) is an element of the instructional subsystem and provides for the selection and assignment of desired exercises from a list of multi-problem exercises correlated to crew capabilities in European or desert terrain databases. The evaluation of crew performance is provided in the form of IOS displays and computer printouts. A training management program provides data necessary to assess crew readiness, direct crew training, and judge crew gunnery proficiency. The SEP Trainer is Equipped with Force XXI Battle Command Brigade-and-Below (FBCB2) digital communication capability. FBCB2 is a battle command information system designed for units performing missions at the tactical level. The AGTS provides FBCB2 functionality at both the crew station and at the IOS to enable digital communications during training exercises. FBCB2 displays the relevant Situational Awareness (SA) picture for the tank commander by plotting the location of his own vehicle, adjacent friendly units, graphical overlays, and enemy icons. The AGTS has undergone a series of improvements to its capabilities. P3I initiatives include two (2) additional unity vision blocks for the tank commander increasing his field of view, a new European terrain database, and improvements to the PAAR. The AGTS continues to mimic the most current capabilities of the Abrams tank through recurring upgrades to the Abrams Common Software Library (ACSL) and FBCB2. The M1A2 SEP TDT replaced the intercom system with a SEP VIC III simulated device, also, upgraded the DID with a new software version which includes new caution/warning tones and voice messages.

Purpose of Trainer:

The AGTS provides training devices for training individual crewmembers (commander only or gunner only), crews (commander and gunner) in precision and degraded gunnery skills for the M1A2. The AGTS can be setup in any one of three configurations: permanent, relocatable, or mobile. This section addresses the mobile configuration.

Physical Information:

The shelter for the AGTS for M1A2 (Mobile-MAGTS) is approximately 20 feet in length, 8 feet wide, and 8 ½ feet high.

Equipment Required, Not Supplied:

None

DVC 17-178, DVC 17-178A

Special Installation Requirements:

None

Power Requirements:

The AGTS trainer, monitoring system and special support equipment operates on standard 230/115-volts, $\pm 10\%$, single-phase, 50/60 Hz power. The system will tolerate the stated input power, $\pm 1\%$. Power line conditioners have been installed to protect the equipment from power fluctuations, sags, surges, and transients. Trainer utility power receptacles have been provided as part of the equipment installation. The receptacles have been placed so that a 120-volt duplex receptacle is within 6 feet of any area where maintenance is to be performed.

Training Category/Level Utilized:

Armor/Level 3

Training Requirements Supported:

M1 Abrams Armor Crewman, MOS 19K

Applicable Publications:

SMM 17-6920-706-AGTS (Volumes 1-3)

SMM 17-6920-706-WSSA-M1A2 (Volumes 1-3)

SMM 17-6920-706-PAAR (Volumes 1-3)

Reference Publications:

FM 3-20-12 (FM 17-12-1) 14 May 2001

Source and Method of Obtaining:

Not generally available for issue (limited production).

Logistic Responsible Command, Service, or Agency:

PEO STRI